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| TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A SUBMISSION UNDER 35 U.S.C. 371 | | ATTORNEY'S DOCKET NUMBER 40616-231172 U.S. APPLICATION NO. (if known, see 37 CFR 1.5) Not Yet Assigned 10/580204 |
| INTERNATIONAL APPLICATION NO. PCT/JP2004/017677 | INTERNATIONAL FILING DATE 22 November 2004 | PRIORITY DATE CLAIMED 27 November 2003 |
| TITLE OF INVENTION EL FIBER AND PHOTOCATALYST REACTION VESSEL | | |
| APPLICANT(S) FOR DO/EO/US Chihiro KAWAI | | |
| Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information: | | |
| 1. <input checked="" type="checkbox"/> This is a FIRST submission of items concerning a submission under 35 U.S.C. 371. 2. <input type="checkbox"/> This is a SECOND or SUBSEQUENT submission of items concerning a submission under 35 U.S.C. 371. 3. <input checked="" type="checkbox"/> This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (21) indicated below. 4. <input type="checkbox"/> The US has been elected (Article 31). 5. <input checked="" type="checkbox"/> A copy of the International Application as filed (35 U.S.C. 371 (c)(2)) a. <input type="checkbox"/> is attached hereto (required only if not communicated by the International Bureau). b. <input checked="" type="checkbox"/> has been communicated by the International Bureau. c. <input type="checkbox"/> is not required, as the application was filed in the United States Receiving Office (RO/US). 6. <input checked="" type="checkbox"/> An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)). a. <input checked="" type="checkbox"/> is attached hereto. b. <input type="checkbox"/> has been previously submitted under 35 U.S.C. 154(d)(4). 7. <input checked="" type="checkbox"/> Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3)) a. <input type="checkbox"/> are attached hereto (required only if not communicated by the International Bureau). b. <input type="checkbox"/> have been communicated by the International Bureau. c. <input type="checkbox"/> have not been made; however, the time limit for making such amendments has NOT expired. d. <input checked="" type="checkbox"/> have not been made and will not be made. 8. <input type="checkbox"/> An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)). 9. <input checked="" type="checkbox"/> An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)). 10. <input type="checkbox"/> An English language translation of the annexes of the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)). Items 11 to 20 below concern document(s) or information included: 11. <input checked="" type="checkbox"/> An Information Disclosure Statement under 37 CFR 1.97 and 1.98. 12. <input checked="" type="checkbox"/> An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included. 13. <input checked="" type="checkbox"/> A First Preliminary Amendment. 14. <input checked="" type="checkbox"/> An Application Data Sheet under 37 CFR 1.76. 15. <input type="checkbox"/> A substitute specification. 16. <input type="checkbox"/> A power of attorney and/or change of address letter. 17. <input type="checkbox"/> A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 37 CFR 1.821 – 1.825. 18. <input type="checkbox"/> A second copy of the published International Application under 35 U.S.C. 154(d)(4). 19. <input type="checkbox"/> A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4). | | |

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

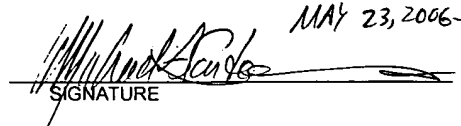
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|--|--|---|---------------------|
| U.S. APPLICATION NO. (If known, see 37 CFR 1.55) 10/580204 | INTERNATIONAL APPLICATION NO. PCT/JP2004/017677 | ATTORNEY'S DOCKET NUMBER 40616-231172 | |
| 20. <input checked="" type="checkbox"/> Other items or information: Face Page of WO 2005/053363 A1 International Search Report Submission of Formal Drawings Transmittal w/ Figs. 1-5, 6a, 6b and 7-9 (9 sheets) Form PCT/IB/308 Verification of Translation Return Receipt Postcard | | | |
| The following fees have been submitted | | CALCULATIONS | PTO USE ONLY |
| 21. <input checked="" type="checkbox"/> Basic national fee (37 CFR 1.492(a)) \$300 | | \$ 300.00 | |
| 22. <input checked="" type="checkbox"/> Examination fee (37 CFR 1.492(c)) If the written opinion prepared by ISA/US or the international preliminary examination report prepared by IPEA/US indicates all claims satisfy provisions of PCT Article 33(1)-(4) \$0 All other situations \$200 | | \$ 200.00 | |
| 23. <input checked="" type="checkbox"/> Search fee (37 CFR 1.492(b)) If the written opinion of the ISA/US or the international preliminary examination report prepared by IPEA/US indicates all claims satisfy provisions of PCT Article 33(1)-(4) \$0 Search fee (37 CFR 1.445(a)(2)) has been paid on the international application to the USPTO as an International Searching Authority \$100 International Search Report prepared by an ISA other than the US and provided to the Office or previously communicated to the US by the IB \$400 All other situations \$500 | | \$ 400.00 | |
| TOTAL OF 21, 22 and 23 = | | \$ 900.00 | |
| <input type="checkbox"/> Additional fee for specification and drawings filed in paper over 100 sheets (excluding sequence listing in compliance with 37 CFR 1.821(c) or (e) or computer program listing in an electronic medium) (37 CFR 1.492(j)). The fee is \$250 for each additional 50 sheets of paper or fraction thereof. | | | |
| Total Sheets | Extra Sheets | Number of each additional 50 or fraction thereof (round up to a whole number) | RATE |
| 37 - 100 = | /50 = | | x \$250.00 |
| | | | \$ |
| Surcharge of \$130 for furnishing any of the search fee, examination fee, or the oath or declaration after the date of commencement of the national stage (37 CFR 1.492(h)). | | \$ | |
| CLAIMS | NUMBER FILED | NUMBER EXTRA | RATE |
| Total claims | 19 - 20 = | x | 0.00 |
| Independent claims | 2 - 3 = | x | 0.00 |
| MULTIPLE DEPENDENT CLAIM(S) (if applicable) | | + | |
| TOTAL OF ABOVE CALCULATIONS = | | \$ 900.00 | |
| <input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. Fees above are reduced by 1/2. | | | |
| SUBTOTAL = | | \$ 900.00 | |
| Processing fee of \$130.00 for furnishing the English translation later than 30 months from the earliest claimed priority date (37 CFR 1.492(i)). | | \$ | |
| TOTAL NATIONAL FEE = | | \$ 900.00 | |
| Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property | | \$ | 40.00 |
| | | \$ | |
| TOTAL FEES ENCLOSED = | | \$ 940.00 | |
| | | Amount to be refunded: | \$ |
| | | Amount to be charged | \$ 940.00 |

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

- a. ☐ A check in the amount of \$ _____ to cover the above fees is enclosed.
- b. ☒ Please charge my Deposit Account No. 22-0261 in the amount of \$ 940.00 to cover the above fees.
A Fee Transmittal is enclosed.
- c. ☒ The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit
Account No. 22-0261. A Fee Transmittal is enclosed.
- d. ☐ Fees are to be charged to a credit card. **WARNING:** Information on this form may become public. Credit card information
should not be included on this form. Provide credit card information and authorization on PTO-2038

NOTE: Where an appropriate time limit under 37 CFR 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be
filed and granted to restore the International Application to pending status.

SEND ALL CORRESPONDENCE TO:

MAY 23, 2006

SIGNATURE

Michael A. Sartori, Ph.D.
NAME

CUSTOMER NUMBER: 26694

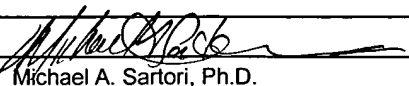
41,289
REGISTRATION NUMBER

#750984

| | | | |
|--|---------------|--------------------------|-----------------------|
| FEE TRANSMITTAL For FY 2006 | | Complete if Known | |
| Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818). | | Application Number | Not Yet Assigned |
| | | Filing Date | Concurrently Herewith |
| | | First Named Inventor | Chihiro KAWAI |
| | | Examiner Name | Not Yet Assigned |
| <input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27 | | Art Unit | N/A |
| TOTAL AMOUNT OF PAYMENT | (\$) 1,040.00 | Attorney Docket No. | 40616-231172 |

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| METHOD OF PAYMENT (check all that apply) | |
| <input type="checkbox"/> Check | <input type="checkbox"/> Credit Card |
| <input type="checkbox"/> Money Order | <input type="checkbox"/> None |
| <input type="checkbox"/> Other (please identify): | |
| <input checked="" type="checkbox"/> Deposit Account | Deposit Account Number: 22-0261 |
| Deposit Account Name: Venable LLP | |
| For the above-identified deposit account, the Director is hereby authorized to: (check all that apply) | |
| <input checked="" type="checkbox"/> Charge fee(s) indicated below | <input type="checkbox"/> Charge fee(s) indicated below, except for the filing fee |
| <input checked="" type="checkbox"/> Charge any additional fee(s) or underpayment of fee(s) under 37 CFR 1.16 and 1.17 | <input checked="" type="checkbox"/> Credit any overpayments |

| | | | | | | | |
|---|---------------------|---|--------------------------------|----------------------------------|-------------------------|---------------------|-----------------------|
| FEE CALCULATION (All the fees below are due upon filing or may be subject to a surcharge.) | | | | | | | |
| 1. BASIC FILING, SEARCH, AND EXAMINATION FEES | | | | | | | |
| | FILING FEES | | SEARCH FEES | | EXAMINATION FEES | | |
| | | Small Entity | | Small Entity | | Small Entity | |
| Application Type | Fee (\$) | Fee (\$) | Fee (\$) | Fee (\$) | Fee (\$) | Fee (\$) | Fees Paid (\$) |
| Utility | 300 | 150 | 500 | 250 | 200 | 100 | |
| Design | 200 | 100 | 100 | 50 | 130 | 65 | |
| Plant | 200 | 100 | 300 | 150 | 160 | 80 | |
| Reissue | 300 | 150 | 500 | 250 | 600 | 300 | |
| Provisional | 200 | 100 | 0 | 0 | 0 | 0 | |
| 2. EXCESS CLAIM FEES | | | | | | | |
| | | | | | | Small Entity | |
| Fee Description | | | | | | Fee (\$) | Fee (\$) |
| Each claim over 20 (including Reissues) | | | | | | 50 | 25 |
| Each independent claim over 3 (including Reissues) | | | | | | 200 | 100 |
| Multiple dependent claims | | | | | | 360 | 180 |
| Total Claims | Extra Claims | Fee (\$) | Fee Paid (\$) | Multiple Dependent Claims | | | |
| 19 | - 20 = | x | = | Fee (\$) | Fee Paid (\$) | | |
| HP = highest number of total claims paid for, if greater than 20. | | | | | | | |
| Indep. Claims | Extra Claims | Fee (\$) | Fee Paid (\$) | | | | |
| 2 | - 3 = | x | = | | | | |
| HP = highest number of independent claims paid for, if greater than 3. | | | | | | | |
| 3. APPLICATION SIZE FEE | | | | | | | |
| If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listings under 37 CFR 1.52(e)), the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s). | | | | | | | |
| Total Sheets | Extra Sheets | Number of each additional 50 or fraction thereof | Fee (\$) | Fee Paid (\$) | | | |
| 37 | - 100 = | /50 | (round up to a whole number) x | = | | | |
| 4. OTHER FEE(S) | | | | | | | |
| Non-English Specification, \$130 fee (no small entity discount) | | | | | | | |
| Other (e.g., late filing surcharge): | | | | | | | |
| 1631 Basic National Stage fee | | | | | | 300.00 | |
| 1633 National Stage Examination Fee - all other ... | | | | | | 200.00 | |
| 1632 National Stage Search Fee - all other situations | | | | | | 500.00 | |
| 8021 National Stage recording each patent assignment, ... | | | | | | 40.00 | |

| | | | |
|---------------------|---|--------------------------------------|----------------|
| SUBMITTED BY | | | |
| Signature |  | Registration No. (Attorney/Agent) | 41,289 |
| Name (Print/Type) | Michael A. Sartori, Ph.D. | Telephone | (202) 344-4000 |
| | | Date | May 23, 2006 |

10/580204

1AP20 Rec'd PCT/PTO 23 MAY 2006

Docket No.: 40616-231172

(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Chihiro KAWAI

International Application No.:
PCT/JP2004/017677

Confirmation No.: Not Yet Assigned

International Filing Date:
November 22, 2004

Application No.: Not Yet Assigned

Art Unit: Not Yet Assigned

Filed: Concurrently Herewith

Examiner: Not Yet Assigned
Customer No:

For: EL FIBER AND PHOTOCATALYST
REACTION VESSEL

26694

PATENT TRADEMARK OFFICE

Submission Of Formal Drawings

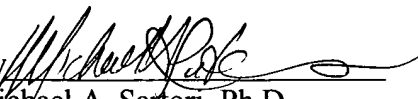
Commissioner of Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Submitted herewith are 9 (nine) sheets of formal drawings containing Figures 1-5, 6a, 6b,
and 7-9.

Dated: May 23, 2006

Respectfully submitted,

By 
Michael A. Sartori, Ph.D.

Registration No.: 41,289
VENABLE LLP
P.O. Box 34385
Washington, DC 20043-9998
(202) 344-4000
(202) 344-8300 (Fax)
Attorney/Agent For Applicant

#751245

10/580204

JAP20 Rec'd PCT/PTO 23 MAY 2006

VERIFICATION

The undersigned, of the below address, hereby certifies that he/she well knows both the English and Japanese languages, and that the attached is an accurate English translation of the PCT application filed on November 22, 2004 under No. PCT/JP2004/017677.

The undersigned declares further that all statements made herein of his/her own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Signed this 13 day of April, 2006

Signature: Shigeru Okuda
Name: Shigeru OKUDA

Address: c/o Itami Works of Sumitomo Electric Industries, Ltd.
1-1, Koyakita 1-chome, Itami-shi, Hyogo, Japan